

Date: Monday, 2/27/2006 4:22:06 PM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : SADDLE FITTING, FWD (OUTBOARD/INBOARD)
Job Number : 25996	
Estimate Number : 10530	
P.O. Number : <i>N/A</i>	Part Number : D2571
This Issue : 2/27/2006 S.O. No. : <i>N/A</i>	Drawing Number : D2571 REV E
Prsht Rev. : NC	Project Number : N/A
First Issue : <i>N/A</i> Type : MACHINED PARTS	Drawing Revision : E
Previous Run : 25897	Material : <i>N/A</i>
Written By : <i>See Comment Below</i>	Due Date : 3/20/2006 Qty: 8 Um: Each
Checked & Approved By : <i>KJ 06.02.28</i>	
Comment : Est: 1 02.10.02 Re-format; Change to Dwg Rev. D & incorporated D2572KJ	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	D6101007	7075-T7351 8.25X7.75X2.5
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 8.0000 Each(s)
 7075-T7351 8.25X7.75X2.5
 Make from D6101-007 billet for D2571
 Ensure that grain is along 7.75" length
 Batch No: *B24893* (8)

J.G 06/03/25 8

2.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
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Comment: HAAS CNC VERTICAL MACHINING #1
 Program Batch No. *25996* Double check by: *SN*

- 1-Machine Step No 1 per Folio FA051 and inspect per attached Dimension Sheets
- 2-Machine Step No 2 per Folio FA051 and inspect per attached Dimension Sheets
- 3-Machine Step No 3 per Folio FA051 and inspect per attached Dimension Sheets
- 4-Deburr and remove all machining marks
- 5-Tumble to remove sharp edges.

C 06/03/25
J.G 06/03/25 8

Pto

3.0	MILLING CONV.	CONVENTIONAL MILLING MACHINE
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Comment: CONVENTIONAL MILLING MACHINE
 Machine keyway as per dwg D2571 & D2572

C 06/03/27
J.G 06/03/27 8

4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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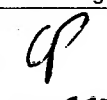




Comment: INSPECT PARTS AS THEY COME OFF MACHINE

C 06/03/27
J.G 06/03/27 8

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☐ No ☒ DQA: ☒ Date: 06/04/04
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
06/03/28	2.1	R2.000 Dimension ("A") is R1.991 0.125" dimension ("W") is 0.118" on one part	 06.03.28 per QSI 042	Correcting R2.000 dimension would result in well that is too thin - see DS email. SCRAP PART. and Replace	 06/03/28	 06/03/28	 06.03.28 per QSI 042	 06/03/28

NOTE: Date & initial all entries

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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SADDLE FITTING, FWD (OUTBOARD/INBOARD)

Job Number: 25996

Part Number: D2571

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC8

SECOND CHECK



Comment: SECOND CHECK

mk 06/03/29

8

6.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Acid etch and Alodine as per QSI 005 4.1

a.m 06-03-29

(8)

7.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

DL 06/04/02

(8)

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

DL 6/4/3

(8)

9.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: *728*

DL 6/4/3

(8)

10.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

DL 06/04/04

(8)

Job Completion



DL 06/04/04

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	25996
Description: Saddle, Fwd Outboard	Part Number:	D2571
Inspection Dwg: D2571 Rev. E		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2571 Rev. E and record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	By	Date
A	0.438	0.443	DT8682	0.438	0.438	0.438	0.438		
B	1.745	1.755		1.747	1.745	1.745	1.745		
C	3.495	3.505		3.499	3.495	3.495	3.495		
D	1.745	1.755		1.747	1.745	1.745	1.745		
E	7.990	8.010		8.004	8.005	8.005	8.006		
F	0.490	0.510		0.501	0.497	0.500	0.496		
G	0.257	0.262	DT8683	0.257	0.257	0.257	0.257		
H	0.375	0.380	DT8684	0.375	0.375	0.375	0.375		
I	0.490	0.510		0.498	0.501	0.500	0.501		
J	1.174	1.184		1.177	1.177	1.177	1.177		
K	0.558	0.578		0.568	0.565	0.564	0.566		
L	1.174	1.184		1.177	1.177	1.177	1.177		
M	1.490	1.500		1.494	1.495	1.494	1.495		
N	2.495	2.505		2.499	2.496	2.496	2.498		
O	3.869	3.879		3.873	3.872	3.871	3.872		
P	0.115	0.135		0.122	0.130	0.126	0.129		
Q	0.115	0.135		0.122	0.130	0.130	0.130		
R	0.240	0.260		0.250	0.254	0.252	0.254		
S	0.115	0.135		0.125	0.126	0.125	0.126		
T	0.178	0.198		0.188	0.188	0.188	0.188		
U	2.940	2.980		2.966	2.960	2.960	2.966		
V	0.230	0.250		0.240	0.245	0.246	0.247		
W	0.115	0.135		0.125	0.118	0.118	0.118		
X	0.308	0.313		0.310	0.310	0.310	0.310		
Y	0.760	0.765		0.760	0.760	0.760	0.760		
Z	0.352	0.372		0.360	0.360	0.360	0.360		
AA	0.470	0.530		0.500	0.500	0.500	0.500		
AB	0.615	0.635		0.624	0.628	0.625	0.625		
AC	0.053	0.073		0.063	0.063	0.063	0.063		
AD	0.240	0.260		0.250	0.254	0.252	0.250		
AE	1.375	1.395		1.387	1.386	1.390	1.393		
AF	0.115	0.135		0.122	0.130	0.130	0.130		
AG	0.240	0.280		0.260	0.260	0.260	0.260		
AH	0.240	0.260		0.244	0.246	0.254	0.251		
AI	2.000	2.020		2.000	2.002	2.002	2.002		
AJ	0.023	0.043		0.033	0.030	0.030	0.030		
Accept/Reject									

Measured by:	J. G. Fer
Date:	06/03/28

Audited by:	T. K.
Date:	06/03/29

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.24	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	

DART AEROSPACE LTD	Work Order:	25996
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Inspection Dwg: D2571 Rev. E		Page 1 of 1

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B	1.745	1.755		1.745	1.747	1.745	1.745		
C	3.495	3.505		3.495	3.495	3.495	3.497		
D	1.745	1.755		1.745	1.747	1.745	1.745		
E	7.990	8.010		8.004	8.005	8.005	8.005		
F	0.490	0.510		0.502	0.499	0.499	0.499		
G	0.257	0.262	DT8683	0.257	0.257	0.257	0.257		
H	0.375	0.380	DT8684	0.375	0.375	0.375	0.375		
I	0.490	0.510		0.498	0.502	0.502	0.500		
J	1.174	1.184		1.177	1.177	1.177	1.178		
K	0.558	0.578		0.564	0.565	0.567	0.564		
L	1.174	1.184		1.177	1.177	1.177	1.178		
M	1.490	1.500		1.496	1.495	1.495	1.495		
N	2.495	2.505		2.498	2.496	2.497	2.495		
O	3.869	3.879		3.872	3.872	3.872	3.872		
P	0.115	0.135		0.128	0.130	0.128	0.128		
Q	0.115	0.135		0.130	0.130	0.130	0.130		
R	0.240	0.260		0.253	0.254	0.254	0.254		
S	0.115	0.135		0.126	0.124	0.126	0.127		
T	0.178	0.198		0.188	0.188	0.188	0.188		
U	2.940	2.980		2.960	2.960	2.960	2.960		
V	0.230	0.250		0.245	0.244	0.248	0.248		
W	0.115	0.135		0.116	0.116	0.116	0.118		
X	0.308	0.313		0.310	0.310	0.310	0.310		
Y	0.760	0.765		0.760	0.760	0.760	0.760		
Z	0.352	0.372		0.368	0.368	0.365	0.368		
AA	0.470	0.530		0.500	0.500	0.500	0.500		
AB	0.615	0.635		0.627	0.626	0.626	0.626		
AC	0.053	0.073		0.063	0.063	0.063	0.063		
AD	0.240	0.260		0.250	0.249	0.254	0.253		
AE	1.375	1.395		1.386	1.388	1.386	1.385		
AF	0.115	0.135		0.130	0.130	0.130	0.131		
AG	0.240	0.280		0.260	0.260	0.260	0.266		
AH	0.240	0.260		0.255	0.254	0.254	0.257		
AI	2.000	2.020		2.001	2.002	2.000	2.000		
AJ	0.023	0.043		0.030	0.030	0.030	0.030		
Accept/Reject									






Measured by:	En
Date:	06/03/29

Audited by:	JML
Date:	06/03/29

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.24	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
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

05.12.06

MATERIAL: 7075-T7351 (QQ-A-250/12) (REF DART SPEC. D6102-001)
FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1
POWDER: COAT GLOSS WHITE (REF 4.3.5.1) PER DART
QSI 005 4.3
BREAK ALL SHARP EDGES 0.010 TO 0.020
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

- | | |
|---|--|
|  | ENGRAVE PART AND BATCH NUMBER IN THIS AREA TO MAX DEPTH OF 0.010 |
|  | ENGRAVE DART LOGO TO MAX DEPTH OF 0.015 WITH MIN RAD 0.125 |
|  | CHAMFER 0.063" x 45° AROUND THIS SURFACE (TYPICAL 2 PLACES) |
|  | CHAMFER 0.063" x 45° ALL AROUND |
|  | CHAMFER 0.033" x 45° (SEE DETAIL C) |

 $\triangle E$

Technical drawing of a mechanical part, showing a cross-section (VIEW B-B) and a side view. The side view shows a series of rounded rectangular features with a total width of 8.000. The cross-section (VIEW B-B) shows a central feature with a width of 1.73 and a height of 0.20. The drawing includes various dimension lines and tolerances, such as 0.005, 0.000, 1.750, 3.500, and 8.000. A 'DART' feature is indicated on the side view. The drawing is labeled 'VIEW B-B' and 'VIEW A-A'.

E	05.07.13	ADD CHAMFER ON RIDGE, NOTE 5
D	02.09.06	ADD RIDGES; TIGHTEN TOLERANCES
C	99.10.22	INCORP. DEO 9123/9079/9102 ADD DIMENSIONS PER TSR A1177
B	96.12.02	ADD GRAIN DIR., 0.438 WAS 0.425
A	96.09.16	NEW ISSUE
DESIGN		DRAWN BY
DS	PH	
DART AEROSPACE LTD.		
HARRISBURY, ONTARIO, CANADA		
CHECKED	APPROVED	DRAWING NO.
		D2571
DATE	TITLE	
05.07.13	OUTER FWD SADDLE	
	REV.	SCALE
	SHEET 1 OF	

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DART AEROSPACE LTD.

DETAIL C
SCALE 4:3

SECTION A-A

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 25946

Chris Provencal

From: David Shepherd [davids@dartaero.com]
Sent: March 28, 2006 11:13 AM
To: Chris Provencal
Subject: Re: NCR D2571 saddle

Scrap the part. Too thin.

----- Original Message -----

From: "Chris Provencal" <cprovencal@dartaero.com>
To: "David Shepherd (E-mail)" <davids@dartaero.com>
Sent: Tuesday, March 28, 2006 9:00 AM
Subject: NCR D2571 saddle

> David,
>
> One D2571 saddle:
>
> -The radius of the part mating with the skidtube should be R2.000"
> +0.020/-0.000, the radius is R1.991"
> -The wall of that section should be 0.125", it is 0.108"
>
> If they fix the radius so that its R2.000 to properly fit the skidtube,
then
> the wall thickness would end up being 0.108".
>
> I checked the SR and I don't see anything that addresses that section.
>
> Sincerely,
> Chris Provencal
> DART Aerospace Ltd.
> Email..cprovencal@dartaero.com
> Phone...613-632-3336
> Fax.....613-632-4443
>